PI TAU SIGMA ANNUAL CHAPTER REPORT

2013-2014

Cal Poly Pomona Delta Beta

Introduction

The Cal Poly Pomona Delta Beta Chapter of Pi Tau Sigma made some serious changes in the previous year, but there was much work required to continue the growth of our chapter. The main objective of our chapter for the 2013-2014 school year was improve the current tutoring program, continue the industry lead tours and create more opportunities throughout the quarter to socialize with other Pi Tau Sigma Members and Initiates. This would not have been done without the help of the following officers:

- President: Andrew Martens
- Vice President: Anthony Aguirre
- Treasurer: Edwin Noriega
- Secretary: Wesley Gunter
- Events Coordinator: John Prevel
- E-Council Rep: Joshua Cheng

To begin planning the year during the summer of 2013, the officers got together several times to get to know each other, plan future events, and accomplish the requirements set out by both Pi Tau Sigma National and the Cal Poly Pomona State University. A beach trip was held early in the summer to get to know one another and begin discussing what the goals were for the following quarter. Other meetings followed throughout the summer to complete both the Cal Poly Pomona club requirements and to plan a summary calendar for the school year to follow.

Initiation

Pi Tau Sigma – Delta Beta Chapter has a reputation for producing some of the best Mechanical Engineers in the area. The Delta Beta Chapter molds Mechanical Engineers to have the necessary skills in the job force and create project work in the most effective way possible. A lot of this success is a result of the recruiting regimen. The selection process for inviting Mechanical Engineering students to initiate for Pi Tau Sigma – Delta Beta begins well before the first day of class. The club contacts the Mechanical Engineering Department two weeks prior to class and requests a list of students who meet the following requirements:

- Top 35% of senior class / 25% of junior class
- Minimum 3.0 Overall GPA
- Minimum 2.7 ME GPA (excluding all General Education classes)
- Minimum 40 ME units completed
- Minimum 36 units completed at Cal Poly Pomona

The last two requirements have been implemented to filter out transfer students that come into the department with junior status without even taking a single class on campus. After this, the initiates are required to go through a quarter long initiation process that includes volunteering for the Mechanical Engineering Department a minimum of 5 hours and obtaining 10 signatures from

current Pi Tau Sigma members (which includes two from faculty members and three from current officers). During this year the Cal Poly Pomona-Delta Beta Fall Initiation, 20 new members were initiated into Pi Tau Sigma. This was on track with last year's initiation numbers and greater than in previous years. The Spring Initiation had a total of 29 initiates which really allowed for a greater amount of work to be done with the service hour activities shown in this year's Chapter Activities and campus involvement listed below.

Chapter Activities

Meetings

Meetings were held Thursdays on a bi-weekly basis, always offset of ASME meetings by one week. They were during "U-Hour" (between 12 and 1pm) where no classes are scheduled during this time. Things typically discussed were upcoming events, community service opportunities and initiation progress for the incoming members. At the second meeting of the year there was a competition to make the biggest tower from cardstock paper and a couple feet of tape. The tower had to stand on its own and was further tested against earthquakes by shaking the tower's base (Building in California means earthquake proofing your structures). There was another similar competition that required initiates and members to build the best protection for an egg that was dropped from 10ft. These fun events along with videos of groundbreaking engineering advances were inserted into every meeting to make them more enjoyable and get students communicating and interacting with one another.

Facility Tours

Facility Tours were one of the main focuses for this quarter because it gives students that are members or initiates of Pi Tau Sigma a good opportunity to interface with industry and set them apart from other resumes that come into the company. Throughout the years many of our members have received jobs either directly or indirectly thru Pi Tau Sigma and tours have been a large contributing factor. We set our goals on having one tour for each of our three quarters. These three tours wouldn't be possible if it were not for the help of our current members who have interned at the companies below.

Jet Propulsion Laboratory (JPL), Pasadena

This facility focuses on the production of unmanned vehicles and probes that are sent into space for exploration. During the tour students were taken through many of the different sections of the site. The first was the assembly lines where various space craft and equipment is produced. Next the tour went to the Mars yard that simulates the environment for the actual mars rover! Lastly the tour took students thru the In-Flight Operations Center where the equipment for deep space communication is held.

Applied Medical, Rancho Santa Margarita
This site is the company headquarters and also company production center. Each building has a specific production purpose producing parts such as surgery equipment, prosthesis, as well as general medical equipment. Throughout the tour students were led by practicing Engineers who took them throughout the facility describing what types of medical equipment the site produces. The tour took students to a room where they were able to perform a mock surgery with the same equipment that is used by doctors. They also had a full tour of the facilities production line and showed how much of the medical equipment and implants used in hospitals are manufactured.

Boeing, El Segundo
This tour is actually scheduled for the summer of 2014 due to a scheduling issue that came up during the spring quarter. This site of The Boeing Company focuses on the design and manufacturing of Satellites. It will take students to see huge vibration tables that are used to simulate rocket take-off, life size commercial satellites that span as large as a commercial 787 aircraft, and the testing equipment required to properly design satellites.

Pi Tau Sigma Campus Involvement

Due to our clubs service hour requirement, the initiates helped out during many events that were held by both our club and the Engineering major. Our club was key to success of many of these events due to the number of our initiates that participated.

Pi Tau Sigma Tutoring
This year we continued the Free Pi Tau Sigma Hosted tutoring for all majors. In hopes of increasing interest students would have in the tutoring the officers started put together a test bank that included previous finals, midterms and quizzes for all General Education and entry level Mechanical Engineering classes. In order gain permission from the professors whose test are posted, a form was sent to all professors asking them to sign off permission for posting their tests.

Cal Poly Pomona Robot Rally
The Annual Robot Rally is a culminating event held at Cal Poly Pomona. Students from all participating schools and after school programs visit Cal Poly Pomona and show off their creations after 20 weeks of learning. Students take part in four, fun-filled, engaging and demanding events such as the Impromptu Obstacle Challenge, Sumo Robot Challenge, Fast Line Following Challenge, and the Teamwork Challenge.

YES Program
Youth Engineering Success Program (YES) is the biggest Outreach event of the year for the club society of Women Engineers. They invited about 400 students to visit Cal Poly Pomona to learn more about Cal Poly Pomona and engineering. Most of the time is spent going through labs and doing hands on activities, while the rest of the time is a presentation regarding Information on both Engineering and the Cal Poly campus. The middle and high school students learn more about tuition, scholarships, and most importantly engineering.

Mechanical Engineering Banquet
This year the officers and department decided to make the annual Cal Poly Pomona Mechanical Engineering Banquet more exciting and have many more social events. With a very general donation from the department and co-hosting the event with ASME, we were able to drop ticket sales from $30 to $15 making us to sell around 170 tickets! This year's event also had many fun attractions such as a DJ, photo booth, and gag awards. The event also kept some of the traditional events such as speaker, professor awards and dressy attire shown below.

Left to Right: Joshua Cheng, Anthony Aguirre, Andrew Martens, John Prevel, Edwin Noriega, Wesley Gunter

Future Goals

Cal Poly Pomona Delta Beta Chapter is heading in the right direction. There were a few ideas that were in works that did not get accomplished. The first being more free social events, which will cause an increase in the desire of members to come back after initiation and participate. Due to the large amount of commuting students, many do not participate in extracurricular activities. These fun and free events will draw more people out and increase the overall satisfaction for the members. Also, the tutoring program database should continue to grow and also have an increase in the amount of advertisement that will let incoming students know about the free tutoring that our chapter of Pi Tau Sigma provides.

Conclusion

It has been a great year for Cal Poly Pomona Delta Beta chapter of Pi Tau Sigma. There has been a lot of good that has came from the hard work of all the officers, members and initiates that have participated in the many events that have been hosted this year. The future of the Cal Poly Pomona Delta Beta chapter is very bright with the support of the graduated members and the resources available due to this year's officer's hard work.